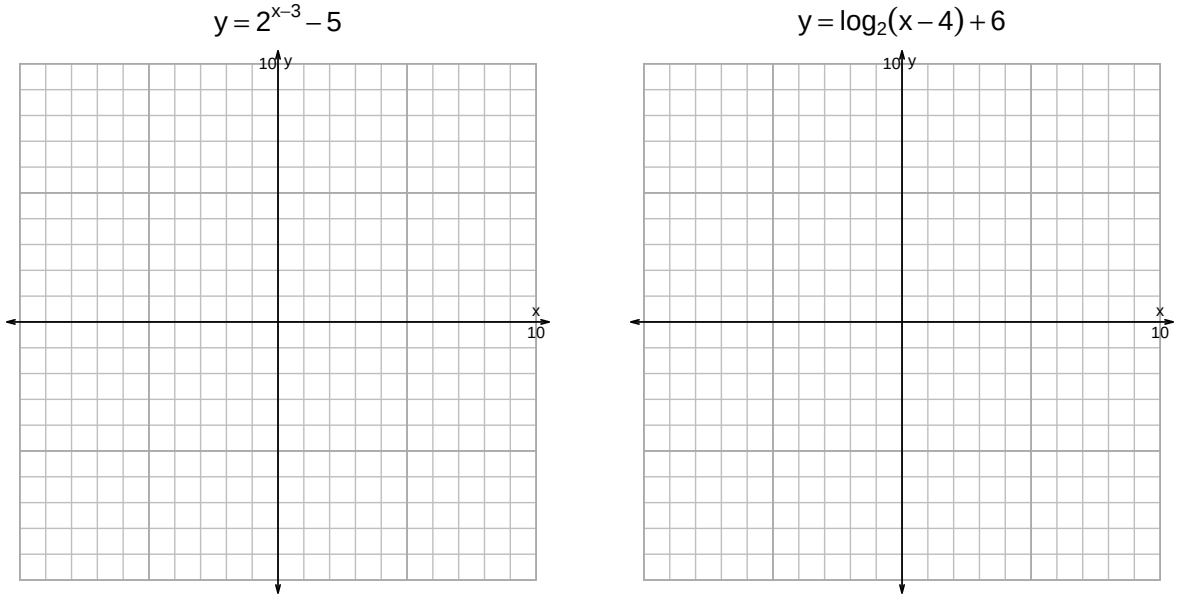
Name: Date:

s18quiz: EXP LOG (QUIZ v270)

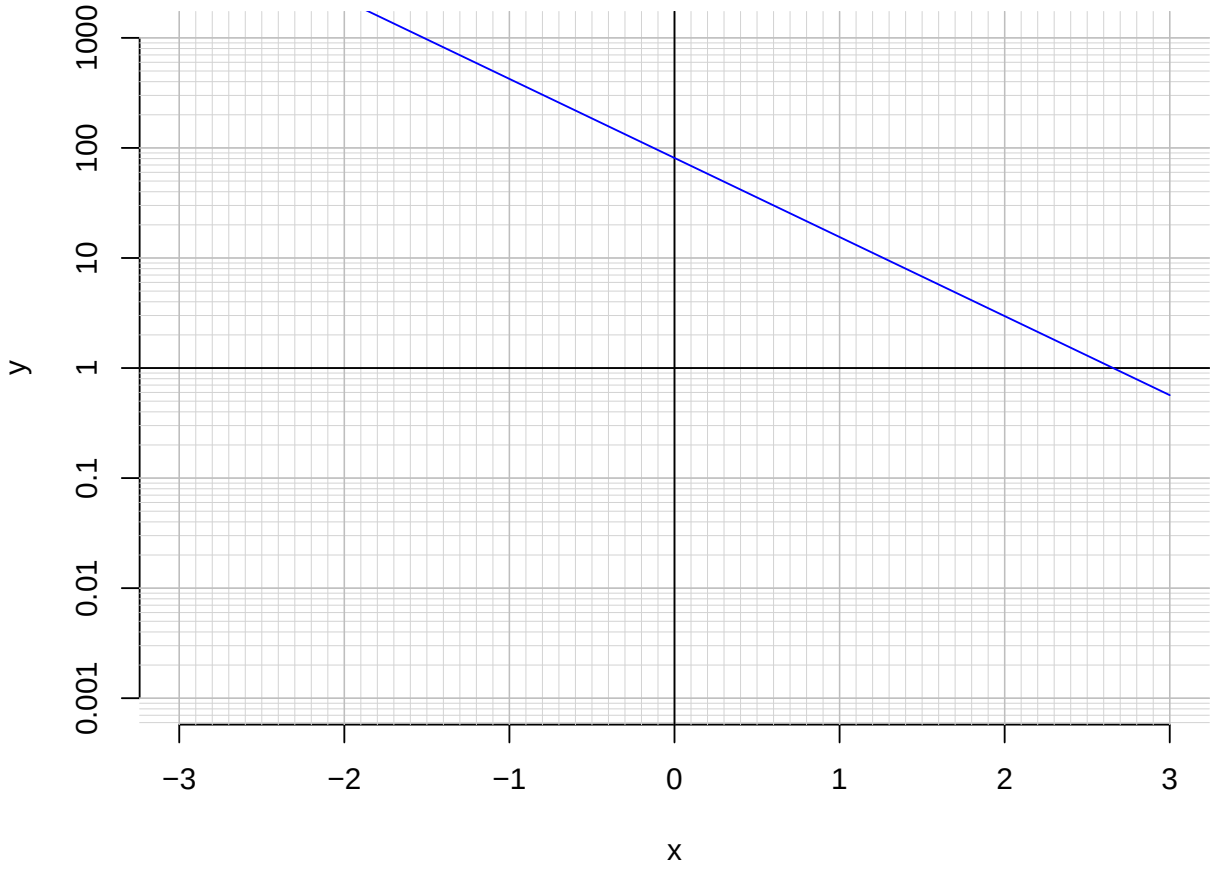
1. Graph $y = 2^{x-3} - 5$ and $y = \log_2(x-4) + 6$ on the grids below. Also, draw any asymptotes with dotted lines.



2. Write (but do not evaluate) the solution to the equation below by writing a logarithmic expression.

$$19 = \left(\frac{5}{7}\right) \cdot 10^{3t/4}$$

3. An exponential function $f(x) = 81.1 \cdot e^{-1.65x}$ is graphed below on a semi-log plot.



a. Using the plot above, evaluate $f(-1.1)$.

b. Express $f^{-1}(x)$, the inverse of f.

c. Using the plot above, evaluate $f^{-1}(8)$.